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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,023	06/01/2001	Tuan Nguyen	2001 P 09907 US	3237

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Siemens Corporation  
Intellectual Property Department  
186 Wood Avenue South  
Iselin, NJ 08830

EXAMINER


BORISSOV, IGOR N

ART UNIT	PAPER NUMBER
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3629

DATE MAILED: 08/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/873,023	<b>Applicant(s)</b> NGUYEN ET AL. 	
	<b>Examiner</b> Igor Borissov	<b>Art Unit</b> 3629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21,23,24,26-28 and 30-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21,23,24,26-28 and 30-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

Claims 22, 25 and 29 have been canceled. Claims 3, 15-16, 26-28, 30-31 and 36-37 have been amended. Claims 1-21, 23-24, 26-28 and 30-37 are currently pending in the application.

Claim Objections have been withdrawn due to applicant's amendment.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1-21, 23-24, 26-28 and 30-37** are rejected under 35 U.S.C. 101 because the claimed *method for pricing an electronics assembly system solution for a customer* is directed to non-statutory subject matter. The claimed invention is not within the technological arts.

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether

Art Unit: 3629

an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, *State Street* never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

Art Unit: 3629

In the present application, independent claims 15 and 28 recite the steps of: *providing an electronic assembly system solution, computing a customer benefit associated with the solution; computing a monetary value based on the customer benefit; and collecting from the customer an amount based on the computed value* are abstract ideas which can be performed mentally without interaction of a physical structure. The “whereby” clause, while relating back to and attempting to clarify what is required by the claim and give meaning and purpose to the claim, does not recite a clear limitation in the technological arts. The phrase “using a computer model” can be understood as using a mathematical algorithm, which may be processed by a computing device. However, the actual use of the computing device is not recited in the claims. Neither is recited an operation being performed by a computer within a computer.

As per independent claim 1, although the phrase “with the aid of a computer model” is incorporated in the body of the claim, it can be understood as using a mathematical algorithm, which may be processed by a computing device. However, the actual use of the computing device is not recited in the claims. Neither is recited an operation being performed by a computer within a computer.

Therefore, so as the independently claimed invention is directed to an abstract idea which does not recite a limitation in the technological arts, those claims and claims depending from them, are not permitted under 35 USC 101 as being related to non-statutory subject matter. However, in order to consider those claims in light of the prior art, examiner will assume that those claims recite statutorily permitted subject matter.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-21, 23-24, 26-28 and 30-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGill (US 6,449,597) in view of Ouimet et al. (US 6,078,893) and further in view of Robertson et al. (US 6,594,799).**

**Independent Claims.**

**Claims 1, 15 and 28.** McGill teaches a method and system for automobile manufacturing utilizing a plurality of suppliers of product (automobile) components, wherein the suppliers, rather than being paid for their components, receive revenue in accordance with usage of the product (column 1, lines 45-48; column 5, lines 57-63).

However, McGill does not teach modeling of future benefit in relation to the component price.

Ouimet et al. (hereinafter Ouimet) teaches a method and system for modeling a future demand and product price (column 1, lines 55-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify McGill to include modeling a future demand for a particular product, because it would allow the suppliers to predict the successful auto brands to cooperate with, thereby maximize the revenue.

Also, McGill does not specifically teach electronic assembly.

Robertson et al. (hereinafter Robertson) teaches a method and system for designing electronic circuits upon request, wherein electronic design automation software tools are employed, and wherein said circuits designed may be purchased or leased (column 5, lines 1-19).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify McGill and Ouimet to include that said components include electronic assemblies, because it would increase safety and comfort of the automobiles.

Dependent Claims.

**Claim 2.** See claim 1.

**Claims 3 and 16.** Said method and system, wherein the software tools are employed for representing the electronics assembly system (Robertson; column 5, lines 5-11).

**Claims 4 and 17.** Entering data into an input interface; transferring data from the input interface to a modeling tool; and using the modeling tool utilizing the transferred Data (Ouimet; Figs. 5 and 10; column 4, lines 27-66).

**Claims 5, 18 and 32.** Modeling a future demand for a particular product (Ouimet; column 1, lines 55-65). Information as to *discrete event simulation* is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999). The specific example of non-functional descriptive material is provided in MPEP 2106, Section VI: (example 3) a process that differs from the prior art only with respect to non-functional descriptive material that cannot alter how the process steps are to be performed. The method steps, disclosed in McGill, Ouimet and Robertson would be performed the same regardless if *modeling is a discrete event simulation*, or not.

**Claims 6 and 19.** See claim 1.



**Claims 7-9, 20-21 and 34-35.** Entering data into an input interface (Ouimet; Figs. 5 and 10; column 4, lines 27-66). Information as to *specific design of the interface* is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).

**Claims 10.** See claim 1.

**Claims 11-13.** See claim 1.

**Claim 14.** Said method and system, wherein value corresponding to the price for the electronics assembly solution is collected after the customer benefit is realized (McGill; column 5, lines 57-63).

**Claim 23.** Said method and system, wherein the computed monetary value is based on historical (actual) sales values (Ouimet; column 2, lines 34).

**Claim 24.** Receiving revenue in accordance with usage of the product (column 1, lines 45-48; column 5, lines 57-63). Information as to *the structure of the collected amount* is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious. See: *In re Gulack* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) *In re Dembiczak* 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).

**Claim 26.** See claim 16.

**Claim 27.** See claim 22.

**Claims 30 and 37.** See claim 3.

**Claim 31.** See claim 4.

**Claim 32.** See claim 5.

**Claim 33.** See claim 6.

**Claims 34-35.** See claims 20-21.

**Claim 36.** See claim 10.

### ***Response to Arguments***

Applicant's arguments filed 6/07/2004 have been fully considered but they are not persuasive.

In response to applicant's argument that incorporating of the phrase "using a computer model" into the claim obviates the rejection under 35 U.S.C. 101, examiner maintains that said phrase does not recite a clear limitation in the technological arts. The phrase "using a computer model" can be understood as using a mathematical algorithm, which may be processed by a computing device. However, the actual use of the computing device is not recited in the claims. Neither is recited an operation being performed by a computer within a computer. See discussion above.

In response to applicant's argument that Ouimet et al. fails to teach *predicting of customer benefit*, the examiner points out that said benefit is realized at the time of sell/lease of a product. Therefore, predicting demand for the product obviously indicates predicting customer benefit. Oitmet et al. specifically teach predicting demand for the product (C. 1, L. 55-65).

In response to applicant's argument that the prior art fails to disclose *generating a benefit guarantee, and computing a monetary value based on said benefit*, the examiner stipulates that McGill discloses receiving benefits by each partner based on their relative percentage equity ownership of the product, thereby obviously indicating a guaranteed percentage of the benefit (C. 5, L. 57-63).

In response to applicant's argument that the prior art fails to disclose *offering a performance-based contract for sale, and assessing compensation based upon the monitored performance*, the examiner points out that McGill

Art Unit: 3629

teaches said method and system including receiving revenue in accordance with usage of the product (column 1, lines 45-48; column 5, lines 57-63). Receiving revenue for services rendered implies offering a performance-based contract for sale/lease, and assessing compensation based upon the monitored performance.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Igor Borissov at telephone number (703) 305-4649.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Receptionist whose telephone number is (703) 872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

Supervisor, John Weiss, can be reached at (703) 308-2702.

Any response to this action should be mailed to:

***Commissioner of Patents and Trademarks***

***Washington D.C. 20231***

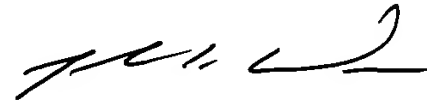
Art Unit: 3629

or faxed to:

**(703) 872-9306** [Official communications; including After Final  
communications labeled "Box AF"]

Hand delivered responses should be brought to Crystal Park 5, 2451  
Crystal Drive, Arlington, VA, 7<sup>th</sup> floor receptionist.

IB



**JOHN G. WEISS**  
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